In the Claims:

1-7. (Cancelled)

8. (Currently Amended) A method of transforming an Orthogonal Frequency Division Multiplexing (OFDM) signal by a fast Fourier transform (FFT) processor, the OFDM signal having a symbol, the symbol including a first long preamble, a second long preamble and first data, the first and second long preambles respectively having a sequence of N-samples, the method comprising:

(a) storing the first long preamble and the second long preamble in first, second, third and fourth memories in sequence as the OFDM signal is received;

(b) reading the first long preamble and the second long preamble stored in the first, second, third and fourth memories in response to an end point of the second long preamble being detected, transforming the first and second long preambles by a fast Fourier transform, respectively, into a third preamble and a fourth preamble, and storing in sequence the third and fourth long preambles in the first memory and the second memory;

(c) transforming second data that is received by the FFT processor after the first data is buffered, and the first data, respectively, into third data when the first and second long preambles are transformed into the third and fourth preambles, storing the third data in the memories in sequence, and outputting the third data stored in the memories; and

(d) finishing the fast Fourier transform method when the symbol is a final symbol, and performing (c) when the symbol is not the final symbol;

wherein (c) comprises:

(c-1) activating a first toggle signal that is configured to control read and write operations with respect to the memories when the first long preamble and the second long preamble are transformed by the fast Fourier transform;

(c-2) determining whether or not the first data are transformed by the fast Fourier transform when the first toggle signal is in an active state;

<u>(c-3) storing in sequence the third data in the first memory and the third memory when the first and second data are transformed by the fast Fourier transform, and outputting in sequence the third data stored in the second and fourth memories; and</u>

<u>(c-4) inverting the first toggle signal, and activating a second toggle signal for controlling the read and write operations with respect to the memories.</u>

9.   (Cancelled)

10.   (Currently Amended) The method according to Claim [[9]] 8, wherein (c-3) further includes storing in sequence the second data in the second memory and the fourth memory when the first data is transformed by the fast Fourier transform, and outputting in sequence the third data stored in the first memory and the third memory.

11.   (Currently Amended) The method according to Claim [[9]] 8, wherein the first toggle signal controls the read operation with respect to the first and third memories and controls the write operation with respect to the second and fourth memories, and the second toggle signal controls the write operation with respect to the first and third memories and controls the read operation with respect to the second and fourth memory.

12.   (Original) The method according to Claim 8, wherein the first data is delayed data by N/2.

13-20. (Cancelled)